

REMARKS

Entry of this Preliminary Amendment is requested. The above-made amendments have been made to place the application in conformance with American standards. No new matter has been added.

Respectfully submitted,

By 

Diderico van Eyl  
Attorney for Applicants  
Reg. No. 38,641

Bayer Corporation  
100 Bayer Road  
Pittsburgh, Pennsylvania 15205-9741  
(412) 777-8355  
FACSIMILE PHONE NUMBER:  
(412) 777-8363

/jme/DVE0304

**MARKED-UP VERSION SHOWING CHANGES**

**IN THE CLAIMS:**

Claims 1-21 were cancelled and new Claims 22-43 were added:

--22. A coated nickel hydroxide having a cobalt(II) hydroxide coating that is stable to oxidation, wherein the nickel hydroxide has a pastel green color that does not change during storage in the atmosphere for 4 weeks.

23. A coated nickel hydroxide having a cobalt hydroxide coating that is stable to oxidation, wherein the nickel hydroxide has a content of cobalt in the 3-valent oxidation level increasing by less than 0.5%, based on the total cobalt content, after storage in air for at least 4 weeks.

24. A coated nickel hydroxide having a cobalt hydroxide coating, wherein the nickel hydroxide is stable to oxidation, and wherein the coating has 1 to 200 mmol of one or more anions of weak inorganic oxygen acids per mol of cobalt(II) hydroxide.

25. The nickel hydroxide according to Claim 24, wherein the anion is CO<sub>3</sub>.

26. The nickel hydroxide according to Claim 22, wherein the nickel hydroxide is in the form of powder and wherein the nickel hydroxide has an average particle size (D50 value, measured by the Mastersizer method) of 0.5 to 500 µm.

27. The nickel hydroxide according to Claim 22, wherein the nickel hydroxide is a coating on a substrate.

28. The nickel hydroxide according to Claim 22, wherein the nickel hydroxide comprises an amount of 0.2 to 25 wt.% in total of a doping element selected from the group consisting of Mg, Ca, Sr, Sc, Y, La, lanthanoids, Ti, Zr, Cr, Mo, W, Mn, Fe, Co, Cu, Zn, Cd, B, Al, Ga, In, Si, P, As, Sb and Bi, and combinations thereof.

29. The nickel hydroxide according to Claim 22, wherein the nickel hydroxide has water molecules at interstitial sites in an amount of up to 10 wt.%.

30. A process for preparing a coated nickel hydroxide having a cobalt(II) hydroxide coating that is stable to oxidation, wherein the coated nickel hydroxide

has a pastel green color that does not change during storage in the atmosphere for 4 weeks,

the process comprising treating (i) optionally doped coated nickel hydroxide provided with a cobalt hydroxide coating with (ii) a weak inorganic oxygen acid selected from the group consisting of aluminate, borate, carbonate, chromate, manganate, molybdate, niobate, phosphate, silicate, tantalate, vanadate, tungstate, oxalate, alkali metal salts thereof, and mixtures thereof.

31. The process according to Claim 30, wherein the treating is carried out in an aqueous solution of alkali metal carbonate, an aqueous solution of alkali metal bicarbonate, or mixtures thereof.

32. The process according to Claim 30, wherein the process further comprises a stabilizing treatment that is carried out in an original precipitation suspension of the coating process or after prior removal of mother liquor of the original precipitation suspension and subsequent resuspending in water.

33. The process according to Claim 32, wherein the stabilizing treatment is carried out by treating an unwashed or washed filter cake directly after filtration of the mother liquor of the original precipitation suspension of the process.

34. The process according to Claim 32, wherein the stabilizing treatment is carried out by carbonation of the surface of the coated nickel hydroxide coated with cobalt(II) hydroxide.

35. The process according to Claim 34, wherein the carbonation is carried out by addition of alkali metal carbonate solutions, alkali metal bicarbonate solutions, or mixtures thereof, at concentrations of 0.01 mol/l up to the solubility maximum.

36. The process according to Claim 35, wherein the amount of alkali metal carbonate solution, alkali metal bicarbonate solution, or mixtures thereof is 0.1-10 times the weight, based on the solids content of the suspension comprising the nickel hydroxide coated with cobalt(II) hydroxide.

37. The process according to Claim 34, wherein the carbonation is carried out by addition of carbon dioxide.

38. The process according to Claim 32, wherein the stabilizing treatment is carried out at a temperature of 0-100°C.

39. The process according to Claim 30, wherein the coated nickel hydroxide coated with stabilized cobalt(II) hydroxide is washed before a final drying step.

40. The process according to Claim 30, wherein the coated nickel hydroxide coated with stabilized cobalt(II) hydroxide is dried without exclusion of air.

41. The process according to Claim 34, wherein the carbonation is carried out by treating of a moist filter cake of the nickel hydroxide coated with cobalt(II) hydroxide, in carbon dioxide or carbon dioxide-containing air under CO<sub>2</sub> partial pressures of 0.01 to 2 bar, optionally with simultaneous drying in continuously operated spray dryers or spin flash dryers.

42. The coated nickel hydroxide of Claim 22, wherein a doped or non-doped nickel hydroxide is coated with stabilized cobalt(II) hydroxide.

43. An electrode material in a secondary battery comprising the nickel hydroxide of Claim 42.--

IN THE SPECIFICATION:

On page 1, the title was replaced with the following title:

--NICKEL HYDROXIDE COATED WITH COBALTOUS HYDROXIDE--

On page 1, below the title, the following was added:

--This application is the National Stage Application of PCT/EP00/01667, which claims a priority from German Application 199 10 461.1, filed March 10, 1999.-

On page 1, below the line ending "March 10, 1999," the following was added:

--BACKGROUND OF THE INVENTION--

On page 3, below line 15, the following was added:

--DESCRIPTION--

On page 8, below line 17, the following was added:

--The invention is further described in the following illustrative examples in which all parts and percentages are by weight unless otherwise indicated.--

On page 11, below line 2, the following was added:

--Although the present invention has been described in detail with reference to certain preferred versions thereof, other variations are possible. Therefore, the

spirit and scope of the appended claims should not be limited to the description of the versions contained therein.--

The following new Abstract was added and submitted herein on a separate page:

**--NICKEL HYDROXIDE COATED WITH COBALT HYDROXIDE**  
**ABSTRACT OF THE DISCLOSURE**

A coated nickel hydroxide for rechargeable batteries which is provided with a cobalt hydroxide coating which is stable to oxidation is described. The stability to oxidation is achieved by covering the surface of the cobalt hydroxide layer with anions of weak inorganic oxygen acids.--

F0001207-436476604

NICKEL HYDROXIDE COATED WITH COBALT HYDROXIDE

ABSTRACT OF THE DISCLOSURE

A coated nickel hydroxide for rechargeable batteries which is provided with a cobalt hydroxide coating which is stable to oxidation is described. The stability to oxidation is achieved by covering the surface of the cobalt hydroxide layer with anions of weak inorganic oxygen acids.